

Lamda Maritime Operations Dpt1

From: customerhelp@viswalab.com
Sent: Παρασκευή, 17 Ιανουαρίου 2014 12:06 μμ
To: Lamda Maritime Technical Dpt
Subject: Report:S140157468 - VIGOROUS(IMO No: 9546239) - IFO380-RMG380 : Specifications
Met EFN: 55

FROM
VISWA LAB

TO
LAMDA MARITIME SA

ATTN: Technical Department

Vessel Name : VIGOROUS(IMO No: 9546239)
VLC Log No : S140157468
Place & Date Sent : ABIDJAN, COTE D IVOIRE; 14-Jan-2014
Date Received at VL : 17-Jan-2014

CUSTOMER FURNISHED DATA:

Bunker Port & Date : NO INFORMATION-NOT APPLICABLE ; 27-Nov-2013
Bunker Supplier : MONJASA
Barge : MARIDA NARGVERITE
Sample Grade : IFO380-RMG380
Sample Seal No : 0727037 - Sealed
Bunker Quantity : 100.830 MT
Bunker Density @15°C : 990.8 kg/m3
Bunker Viscosity @50°C : 376.7 cSt
Sulphur Content : 2.61 %
Water Content : 0.10 %
Source of the sample : MANIFOLD
Sampling Method : DRIP

SPECIFIED PARAMETERS FOR IFO380-RMG380 & TEST RESULTS

Parameters	Units	Test Results	Specification Limits
Density @ 15°C	kg/m3	990.9	(991.0 Max)
viscosity @50°C	cSt	289.0	(380.0 Max)
Upper Pour Point	°C	15	(30 Max)
Carbon Residue	% (mass)	14.16	(18.00 Max)
Ash	% (mass)	0.030	(0.150 Max)
Water	% (vol)	0.25	(0.50 Max)
Sulphur	% (mass)	2.40	(3.50 Max)
Total Sediment Pot.	% (mass)	0.02	(0.10 Max)
Vanadium	ppm	90	(300 Max)
Al + Si	ppm	23	(80 Max)
Flash Point	°C	> 70	(60 Min)

Calcium	ppm	7	(- Max)
Zinc	ppm	1	(- Max)
Phosphorus	ppm	2	(- Max)

ADDITIONAL PARAMETERS

Parameters	Test Results	Units
viscosity @100°C	29.6	cSt
API Gravity	11.22	
Sodium	25	ppm
Aluminium	11	ppm
Silicon	12	ppm
Iron	22	ppm
Lead	< 1	ppm
Nickel	23	ppm
Magnesium	1	ppm
Potassium	1	ppm

CALCULATED VALUES

Parameters	Computed Val	Units
Net specific energy	40.31	MJ/kg
Gross specific energy	42.60	MJ/kg
CCAI	855	
Temperature at injection (for 13 cSt)	129	°C
Minimum Transfer Temperature	39	°C

Engine Friendliness Number (EFN : 1 to 100) : 55

CONFORMANCE:

The fuel sample tested conforms to Table 2 of ISO 8217:2005 specifications for grade IFO 380 - RMG 380

COMMENTS:

Viscosity and Sulfur were confirmed by repeated analysis.

SUGGESTIONS & RECOMMENDATIONS TO SHIP OWNERS/OPERATORS/TECHNICAL STAFF

Temperature for injection viscosity of 8 cst is 151°C.
Temperature for injection viscosity of 10 cst is 140°C.
Temperature for injection viscosity of 11 cst is 136°C.
Temperature for injection viscosity of 12 cst is 132°C.
Temperature for injection viscosity of 13 cst is 129°C.
Temperature for injection viscosity of 15 cst is 123°C.
Temperature for injection viscosity of 18 cst is 116°C.
Temperature for injection viscosity of 20 cst is 113°C.

DENSITY

Observation: Though within limit, density is high.

Ensure efficient purification by maintaining fuel temperature around 98°C. Fit the correct gravity disc if you are not using an AI Cap type purifier.

PERCENTAGE WATER

Observation: Presence of water noted.

Ensure water removal through settling and purification.

POUR POINT

Observation:

Heat and store this fuel at 10°C above the measured pour point temperature.

CCAI

Observation: Ignition delay is indicated by CCAI greater than 840 for medium-speed engines and greater than 870 for low-speed engines.

OVERALL QUALITY:

Engine Friendliness Number (EFN) is a unique bench-mark of fuel quality evaluated by VISWA LAB from the point of view of engine wear and tear resulting from the use of this fuel. Based on EFN, which is calculated from the analysis results listed in this report, the quality of this fuel is above average.

NOTE: The conformance of this fuel to the contracted specifications may have no relationship to the evaluation of this fuel based on EFN.

Questions?

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